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10/743,717	12/24/2003	Sadami Okada	118182	8330

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EXAMINER

WHIPKEY, JASON T

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2622

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11/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/743,717	Applicant(s) OKADA, SADAMI	
	Examiner Jason T. Whipkey	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6,7,9,13 and 15-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6,7,9,13 and 15-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed September 29, 2007, have been fully considered but they are not persuasive.

On page 10 of the remarks, Applicant argues:

The Office Action cites Steinberg at col. 3, line 63, to col. 4, line 12, as disclosing the noted feature. Applicant respectfully disagrees. Steinberg's indicium, described in the cited passage, is simply information that is used to mark an original image, and thus in no way corresponds to the image portion of the image data, as recited in claim 1. In Steinberg, even if the encrypted indicium has been decrypted, complicated processing is still needed to remove the mark from the image marked by using the indicium.

The cited passage discloses the concept of an encrypted indicium. Additionally, on the three lines immediately following the passage, Steinberg discloses, "Alternatively, a mark lookup table can be prepared that contains the address and pixel color values for each pixel replaced according to the indicium." These original pixels are the "data of the image portion" recited in Applicant's claim 1. Therefore, Steinberg does disclose "an encryption unit that encrypts the data of the image portion and stores the data encrypted by the encryption unit into the non-image data area."

Claim Rejections - 35 USC § 101

2. The amendment to the claims has overcome the rejection under 35 U.S.C. 101. The rejection is withdrawn.

Claim Rejections - 35 USC § 112

3. The amendment to the claims has overcome the rejection under 35 U.S.C. 112 presented in the previous Office action. The rejection is withdrawn.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claim 23 recites the limitation “the predetermined ratio” on line 4. There is insufficient antecedent basis for this limitation in the claim. For examination purposes, the claim will be treated as if it reads, “a predetermined ratio”.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 6, 7, 9, 13, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami (Japanese Patent Publication No. 2002-281435) in view of Steinberg (U.S. Patent No. 5,862,218).

Regarding **claim 1**, Murakami discloses an electronic camera (see page 6, line 44 of the provided computer translation) that creates an image file (see page 8, line 39) by processing image data obtained through an image-capturing operation, comprising:

an image-capturing unit (a solid-state image sensor) that generates the image data by capturing a subject image (see page 8, line 20);

a data extraction unit (alphabetic character merge part 103 and image data extraction part 201; see Drawing 1) that sets an image plane range corresponding to an image portion of the image data (see page 8, lines 29-30) and extracts data of the image portion in the image plane range (see page 8, lines 32-34);

a data insertion unit (alphabetic character merge part 103) that writes data of a predetermined specific image (see page 8, lines 23-25) over the image plane range of the image data and generates data of a processed image (see page 8, lines 29-30); and

a file creation unit (record treater 104) that creates an image file (see page 8, line 39) by storing the data of the processed image into an image data area of the image file, which is referenced as image data, and storing the data of the image portion into a non-image data area (a header) of the image file, which is not referenced as image data (see page 7, lines 24-27).

Murakami is silent with regard to encrypting the data of the image portion.

Steinberg discloses a digital camera that stores additional data, wherein:

the file creation unit includes an encryption unit that encrypts the data of the image portion (an indicium) and stores the data encrypted by the encryption unit into the non-image data area (a header; see column 3, line 64, through column 4, line 14).

As stated in column 2, lines 61-67, an advantage of encrypting replacement data stored in a header is that the original image can only be viewed by an authorized person. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Murakami's device perform encryption on the data stored in the header.

Regarding **claim 6**, Murakami is silent with regard to the specific information including copyright information.

Steinberg discloses a digital camera that stores additional data, wherein:

the predetermined specific image includes information related to copyright (see Figure 4 and column 6, lines 25-27).

As suggested in column 4, lines 1-2, an advantage of inserting such a marker is that unauthorized use of the original image can be deterred. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Murakami's device insert a copyright notice.

Regarding **claim 7**, Murakami discloses:

the predetermined specific image includes at least information indicating a photographer name or a photographing date/time (see page 8, lines 23-25).

Regarding **claim 9**, Murakami discloses an image processing method for restoring an image comprising steps of:

obtaining the image file created in an electronic camera (see page 8, lines 43-44) according to claim 1 (described *supra*);

reading out the data of the processed image from the image data area of the image file (see page 8, lines 44-46);

reading out the data of the image portion from the non-image data area (the header) of the image file (see page 9, lines 3-4);

specifying the data of the predetermined specific image in the data of the processed image (see page 9, lines 12-19); and

writing the data of the image portion over the specified data of the predetermined specific image (see *id.*).

Murakami is silent with regard to decrypting encrypted data.

Steinberg discloses:

reading out the encrypted data of the image portion from the non-image data area of the image file (see column 8, lines 37-40);

obtaining the data of the image portion by decrypting the encrypted data of the image portion (see *id.*).

Applying the known technique of decryption to the device disclosed by Murakami would yield the predictable result of producing usable data. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Murakami's system decrypt encrypted data, as described by Steinberg.

Claim 13 can be treated like claim 9. Additionally, Murakami discloses that his invention can be implemented using software (see page 11, lines 32-33).

Regarding **claim 23**, Steinberg discloses:

the data insertion unit generates a semitransparent specific image (see figures 4-6) as the predetermined specific image by adding pixels corresponding to the specific image and pixels corresponding to the image portion at a predetermined ratio (50%; see column 6, lines 22-25), and writes data of the semitransparent specific image over the image plane range of the image data to generate the data of the processed image (see column 6, lines 25-34).

Using the known technique of placing a semitransparent mark over an image would yield the predictable result of displaying relevant text without seriously hindering the view of the image. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Murakami's system write a semitransparent image over the original image, as described by Steinberg.

8. Claims 15-22, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami in view of Yamada (U.S. Patent Application Publication No. 2002/0051140), Fox (U.S. Patent No. 6,888,569), and Steinberg.

Regarding **claim 15**, Murakami discloses an electronic camera (see page 6, line 44 of the provided computer translation) that creates an image file (see page 8, line 39) by processing image data obtained through an image-capturing operation, comprising:

an image-capturing unit (a solid-state image sensor) that generates the image data by capturing a subject image (see page 8, line 20);

a data extraction unit (alphabetic character merge part 103 and image data extraction part 201; see Drawing 1) that sets an image plane range corresponding to an image portion of the image data (see page 8, lines 29-30), selects data corresponding to the image plane range from the compressed data, and extracts the selected data as data of the image portion (see page 8, lines 29-34);

a file creation unit (record treater 104) that creates the image file (see page 8, line 39) by storing the data of the processed image into a frame, which is an image area of the file and is referenced as image data, and storing the data of the image portion into an application segment (a header), which is a non-image area of the file and is not referenced as image data (see page 7, lines 24-27).

While Murakami discloses that compression is performed (see page 8, lines 30-31), he is silent with regard to writing compressed data to a range of compressed data.

Yamada discloses an image encoding apparatus (see Figure 10), including:

an image compression unit that generates compressed data (C6) by executing image compression on the image data generated by the image-capturing unit (see paragraph 127), the compressed data including RST marker codes (restart marker RM; see paragraph 129); and

the data insertion unit writes compressed data (C8) of a predetermined specific image over the data corresponding to the image plane range of the

compressed data (CDD) and generates data of a processed image (see paragraph 131).

As suggested in paragraphs 16-19, an advantage of writing compressed data to a range of compressed data is that the data need not be decompressed and recompressed, thereby avoiding the need for additional memory. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Murakami's system write compressed data to a range of compressed data.

Murakami is silent with regard to using a JPEG file.

Fox discloses a digital photographing system that stores data with images. The JPEG format is used (see column 4, lines 55-56), which allows additional data to be stored (see column 4, lines 16-40) with image data. As suggested in column 5, lines 14-28, an advantage of using the JPEG format is that it is flexible enough to allow third party applications to use the additional data area as they see fit. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Murakami's system use the JPEG file format.

Steinberg discloses a digital camera that stores additional data, wherein:

the file creation unit includes an encryption unit that encrypts the data of the image portion (an indicium) and stores the data encrypted by the encryption unit into the non-image area (the header; see column 3, line 64, through column 4, line 14).

As stated in column 2, lines 61-67, an advantage of encrypting replacement data stored in a header is that the original image can only be viewed by an authorized person. For this reason,

it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Murakami's device perform encryption on the data stored in the header.

Regarding **claim 16**, Murakami discloses an electronic camera (see page 6, line 44 of the provided computer translation) that creates an image file (see page 8, line 39) by processing image data obtained through an image-capturing operation, comprising:

an image-capturing unit (a solid-state image sensor) that generates the image data by capturing a subject image (see page 8, line 20);

a data extraction unit (alphabetic character merge part 103 and image data extraction part 201; see Drawing 1) that sets an image plane range corresponding to an image portion of the image data (see page 8, lines 29-30), selects data corresponding to the image plane range from the compressed data, and extracts the selected data as data of the image portion (see page 8, lines 29-34);

a file creation unit (record treater 104) that creates the image file (see page 8, line 39) by storing the data of the processed image into a frame, which is an image area of the file and is referenced as image data, and storing the data of the image portion into an application segment (a header), which is a non-image area of the file and is not referenced as image data (see page 7, lines 24-27).

While Murakami discloses that compression is performed (see page 8, lines 30-31), he is silent with regard to writing compressed data to a range of compressed data.

Yamada discloses an image encoding apparatus (see Figure 10), including:

an image compression unit (encoder portion 9) that generates compressed data (C6) by executing image compression on the image data generated by the image-capturing unit (see paragraph 127);

a marker code insertion unit (encoder portion 9) that inserts RST marker codes (restart marker RM), which indicate positions within an image plane in the image data, into the compressed data generated by the image compression unit (see paragraph 129);

the data insertion unit writes compressed data (C8) of a predetermined specific image over the data corresponding to the image plane range of the compressed data (CDD) and generates data of a processed image (see paragraph 131).

As suggested in paragraphs 16-19, an advantage of writing compressed data to a range of compressed data is that the data need not be decompressed and recompressed, thereby avoiding the need for additional memory. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Murakami's system write compressed data to a range of compressed data.

Murakami is silent with regard to using a JPEG file.

Fox discloses a digital photographing system that stores data with images. The JPEG format is used (see column 4, lines 55-56), which allows additional data to be stored (see column 4, lines 16-40) with image data. As suggested in column 5, lines 14-28, an advantage of using the JPEG format is that it is flexible enough to allow third party applications to use the additional

data area as they see fit. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Murakami's system use the JPEG file format.

Steinberg discloses a digital camera that stores additional data, wherein:

the file creation unit includes an encryption unit that encrypts the data of the image portion (an indicium) and stores the data encrypted by the encryption unit into the non-image area (the header; see column 3, line 64, through column 4, line 14).

As stated in column 2, lines 61-67, an advantage of encrypting replacement data stored in a header is that the original image can only be viewed by an authorized person. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Murakami's device perform encryption on the data stored in the header.

Regarding **claims 17 and 18**, Murakami is silent with regard to the specific information including copyright information.

Steinberg discloses a digital camera that stores additional data, wherein:

the predetermined specific image includes information related to copyright (see Figure 4 and column 6, lines 25-27).

As suggested in column 4, lines 1-2, an advantage of inserting such a marker is that unauthorized use of the original image can be deterred. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Murakami's device insert a copyright notice.

Regarding **claims 19 and 20**, Murakami discloses:

the predetermined specific image includes at least information indicating a photographer name or a photographing date/time (see page 8, lines 23-25).

Regarding **claims 21 and 22**, Murakami discloses an image processing method for restoring an image comprising steps of:

obtaining the image file created in an electronic camera (see page 8, lines 43-44) according to claim 15 (described *supra*);

reading out the data of the processed image from the image data area of the image file (see page 8, lines 44-46);

reading out the data of the image portion from the non-image data area (the header) of the image file (see page 9, lines 3-4);

specifying the data of the predetermined specific image in the data of the processed image (see page 9, lines 12-19); and

writing the data of the image portion over the specified data of the predetermined specific image (see *id.*).

Murakami is silent with regard to decrypting encrypted data.

Steinberg discloses:

reading out the encrypted data of the image portion from the non-image data area of the image file (see column 8, lines 37-40);

obtaining the data of the image portion by decrypting the encrypted data of the image portion (see *id.*).

Applying the known technique of decryption to the device disclosed by Murakami would yield the predictable result of producing usable data. For this reason, it would have been obvious

to one of ordinary skill in the art at the time the invention was made to have Murakami's system decrypt encrypted data, as described by Steinberg.

Murakami is silent with regard to reading RST marker codes from the JPEG file and processing them accordingly.

Official Notice is taken that it was well known in the art at the time the invention was made to read restart (RST) marker codes from a JPEG file and process the file accordingly, as restart markers are included in the JPEG specification. Using restart marker codes would yield predictable results, since their use is dictated by the JPEG specification. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Murakami's system read restart marker codes from a JPEG file.

Regarding **claims 24 and 25**, Steinberg discloses:

the data insertion unit generates a semitransparent specific image (see figures 4-6) as the predetermined specific image by adding pixels corresponding to the specific image and pixels corresponding to the image portion at a predetermined ratio (50%; see column 6, lines 22-25), and writes data of the semitransparent specific image over the image plane range of the image data to generate the data of the processed image (see column 6, lines 25-34).

Using the known technique of placing a semitransparent mark over an image would yield the predictable result of displaying relevant text without seriously hindering the view of the image. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Murakami's system write a semitransparent image over the original image, as described by Steinberg.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Whipkey, whose telephone number is (571) 272-7321. The examiner can normally be reached Monday through Friday from 9:30 A.M. to 6 P.M. eastern standard time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye, can be reached at (571) 272-7372. The fax phone number for the organization where this application is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JTW

JTW

November 15, 2007



LIN YE
SUPERVISORY PATENT EXAMINER